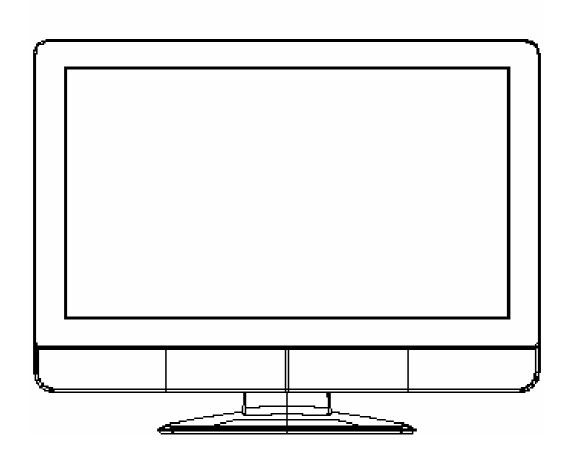
Service Manual



Model #: VIZIO VP504 FHDTV10A

V, Inc

320A Kalmus Drive Costa Mesa, CA 92626 TEL: +714-668-0588 FAX:+714-668-9099

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FCC INFORMATION

This equipment has been tested and found to comply with the limits of a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause unacceptable interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures -- reorient or relocate the receiving antenna; increase the separation between equipment and receiver; or connect the into an outlet on a circuit different from that to which the receiver is connected.

FCC WARNING

To assure continued FCC compliance, the user must use a grounded power supply cord and the provided shielded video interface cable with bonded ferrite cores. Also, any unauthorized changes or modifications to Amtrak products will void the user's authority to operate this device. Thus VINC Will not be held responsible for the product and its safety.

CE CERTIFICATION

This device complies with the requirements of the EEC directive 89/336/EEC with regard to "Electromagnetic compatibility."

SAFETY CAUTION

Use a power cable that is properly grounded. Always use the AC cords as follows – USA (UL); Canada (CSA); Germany (VDE); Switzerland (SEV); Britain (BASEC/BS); Japan (Electric Appliance Control Act); or an AC cord that meets the local safety standards.

Chapter 1 Features

- 1. Built in TV channel selector for TV viewing.
- 2. Simulatnueous display of PC and TV images.
- 3. Connectable to PC's analog RGB port.
- 4. Built in S-video, HDTV, Composite video, HDMI and TV in.
- 5. Built in auto adjust function for automatic adjument of screen display.
- 6. Power saving to reduce consumption power too less than 1W.
- 7. On Screen Display: user can define display mode (i.e. color, brightness, contrast, sharpness), sound setting, TV channel program, aspect and reset all setting.
- 8. Support USB interface in order to soft ware update.

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Chapter 2 Specification

1. PDP CHARACTERISTICS

General Specification of SDI S42AX-YD05

Item	Specification	Unit
Active Area	1105.92 (H) x 622.08 (V)	mm
Pixel Number	1920 x R.G.B. x 1080	pixel
Pixel Pitch	0.576(H) X 0.576 (V)	mm
Display Colors	1.073 Billion	color

2. OPTICAL CHARACTERISTICS

Viewing Angle (CR>10) > Free

3. SIGNAL (Refer to the Timing Chart)

Sync Signal

1) Type: LVDS

2) Input Voltage Level: 100~240 Vac, 50/ 60 Hz

4. Input Connectors

USB, D-SUB15PIN (Full, 3rows), SPDIF(digital audio out), HDMIX4, RCAX1 (component), RCAX1 (AUDIO in), RCAX1 (composite), RCAX1 (AUDIO in), S-Video, Tuner, RCAX1 (AUDIO out)

5. POWER SUPPLY

Power Consumption: 700W MAXPower OFF: to less than 1W MAX

6.Speaker

Output 10W (max) X2

7. ENVIRONMENT

Operating Temperature: 5°C ~35°C (Ambient)

Operating Humidity: Ta= 35 °C, 90%RH (Non-condensing)
Operating Altitude: 0~14,000 feet (4267.2m)(Non-Operating)

8. DIMENSIONS (Physical dimension)

Width: TBD mm Depth: TBD mm Height: TBD mm

9. WEIGHT (Physical weight)

a. Net: TBD±0.5 Kgb. Gross: TBD±0.5 Kg

Please pay attention to the followings when you use this PDP module.

- **9-1. MOUNTING PRECAUTIONS**(1) You must mount a module using holes arranged in four corners or four sides.
- (2) You should consider the mounting structure so that uneven force (ex. Twisted stress) is not applied to the module. And the case on which a module is mounted should have sufficient strength so that external force is not transmitted directly to the module.
- (3) You should adopt radiation structure to satisfy the temperature specification.
- (4) Acetic acid type and chlorine type materials for the cover case are not desirable because the former generates corrosive gas of attacking the latter causes circuit break by electro-chemical reaction.
- (5) When the surface becomes dusty, please wipe gently with absorbent cotton or other soft materials like chamois soaks with petroleum benzene. Normal-hexane is recommended for cleaning the adhesives used to attach surface. Do not use acetone, toluene and alcohol because they cause chemical damage to the glass filter.
- (8) Wipe off saliva or water drops as soon as possible. Their long time contact with glass filter causes deformations.
- (9) Do not open the case because inside circuits do not have sufficient strength.

9-2. OPERATING PRECAUTIONS

- (1) The spike noise causes the mis-operation of circuits. It should be lower than following voltage:
 - V=±200mV(Over and under shoot voltage)
- (2) Brightness depends on the PATTERN.
- (3) Be careful for condensation at sudden temperature change. Condensation makes damage to electrical contacted parts. And after fading condensation, smear or spot will occur.
- (4) When fixed patterns are displayed for a long time, remnant image is likely to occur.
- (5) Module has high frequency circuits. System manufacturers shall do sufficient suppression to the electromagnetic interference. Grounding and shielding methods may be important to minimize the interference.

9-3. HANDLING PRECAUTIONS FOR PROTECTION

- (1) The protection film is attached to the bezel with a small masking tape. When the protection film is peeled off, static electricity is generated between the film and polarizer. This should be peeled off slowly and carefully by people who are electrically grounded and with well ion-blown equipment or in such a condition, etc.
- (2) When the module with protection film attached is stored for a long time, sometimes there remains a very small amount of glue still on the bezel after the protection film is peeled off.
- (3) You can remove the glue easily. When the glue remains on the bezel surface or its vestige is recognized, please wipe them off with absorbent cotton waste or other soft material like chamois soaked with normal-hexane.

Chapter 3 On Screen Display

Main unit button

- (1). POWER \bigcirc
- (2). MENU
- (3). CH +
- (4). CH -
- (5). VOL +
- (6). VOL -
- (7). INPUT

TV Source

A. PICTURE:

- a. PICTURE MODE (CUSTOM; STANDARD; MOVIE; GAME; VIVID; FOOTBALL; GOLF; BASKETBALL; BASEBALL)
- b. BRIGHTNESS (0~100)
- c. CONTRAST (0~100)
- d. COLOR (0~100)
- e. TINT (-32~32)
- f. SHARPNESS (0~100)
- g. ADVANCED VIDEO
 - g-1. NOISE REDUCTION(OFF; LOW; MEDIUM; STRONG)
 - g-2 COLOR ENHANCEMENT(OFF; NORMAL; RICH COLOR; GREN/FLASH; GREEN/BLUE)
 - g-3. ADVANCE ADAPTIVE LUMA (ON/OFF)
 - g-4. COLOR TEMPERATURE(COOL; NORMAL; WARM; CUSTOM)
- h. RESET PICTURE MODE

B. AUDIO:

- a. AUDIO MODE(FLAT; ROCK; POP; CLASSIC; JAZZ)
- b. EQUALIZER(120HZ, 500HZ, 1.5KHZ, 5KHZ, 10KHZ)
- c. BALANCE (-50~50)
- d. SURROUND (ON/OFF)
- e. DIGITAL AUDIO OUT (PCM, OFF, DOBY DIGIYAL)
- f. SPEAKERS (ON/OFF)
- g. AUDIO OUT(FIX, VARIABLE)
- h. LIP SYNC (0~5)
- i. RESET AUDIO MODE

C. TV:

- a. TUNER MODE (ANTENNA/CABLE)
- b. AUTO SEARCH (RUN)
- c. PARTIAL CHANNEL SEARCH
- d. SKIP CHANNEL (TABLE)
- e. MTS (STEREO; SAP; MONO)
- f. TIME ZONE (HAWALL; EASTTERN; INDIANA; CENTRAL; MOUNTAIN; ARIZONA; NEWFOUNDLAND; PACIFIC; ALASKA)
- g. DAYLIGHT SAVING(ON/OFF)

D. SETUP:

- a. LANGUAGE (ENGLISH/FRENCH/SPANISH)
- b. PIP(PIP MODE; PIP SOURCE; PIP POSITION; SIZE)
- c. SLEEP TIMER (OFF/30/60/90/120)
- d. WIDE (WIDE)
- e. INPUT NAMING
- f. CC (CC ON MUTE; CC ON/OFF; DIGITAL CC STYLE)
- g. DIGITAL CC STYLE
 - g-1. CAPTION STYLE

(AS BROADCASTER/CUSTOM)

- g-2. FONT SIZE(SMALL/MEDIUM/LARGE)
- g-3. FONT COLOR

(GREEN/BLUE//RED/CYAN/YELLOW/MAGENTA/BLACK/WHITE)

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Page 3-2

g-4. FONT OPACITY

(SOLID/TRANSLUCENT/TRANSPARENT)

g-5. BACKGROUND COLOR

(GREEN/BLUE//RED/CYAN/YELLOW/MAGENTA/BLACK/WHITE)

g-6. BACKGROUND OPACITY

(SOLID/TRANSLUCENT/TRANSPARENT)

g-7. WINDOW COLOR

(GREEN/BLUE//RED/CYAN/YELLOW/MAGENTA/BLACK/WHITE)

g-8. WINDOW OPATITY

(SOLID/TRANSLUCENT/TRANSPARENT)

- h. H/V POSITION
- i. PARENTIAL
- i. RESET ALL SETTING

E. PARENTAL:

- a. PASSWORD
 - a-1. CHANNEL BLOCK
 - a-2. US TV RATING
 - a-3. US MOVIE RATING
 - a-4. CANADIAN ENGLISH RATING
 - a-5. CANADIAN FRENCH RATING
 - a-6. DTV RATING
 - a-5. BLOCK UNRATED TV
 - a-6. ACCESS CODE EDIT

F. IMAGE CLEANER

RGB Mode

A. PICTURE ADJUST:

- a. AUTO PICTURE (Run)
- b. BRIGHTNESS (0~100)
- c. CONTRAST (0~100)
- d. COLOR TEMPERATURE(CUSTOM, 6500K, 9300K)
- e. H-SIZE (0~255)
- f. H-POSITION (0~100)
- g. V-POSITION (0~100)
- h. FINE TUNE (0~31)

B. AUDIO:

- a. AUDIO MODE(FLAT; ROCK; POP; CLASSIC; JAZZ)
- b. EQUALIZER(120HZ; 500HZ; 1.5KHZ; 5KHZ; 10KHZ)
- c. BALANCE (-50~50)
- d. SURROUND (ON/OFF)
- e. DIGITAL AUDIO OUT(PCM; OFF; DOBY DIGITAL)
- f. SPEAKERS (ON/OFF)
- g. AUDIO OUT(FIX; VARIABLE)
- h. LIP SYNC(0~5)
- i. RESET AUDIO MODE

C. SETUP:

- a. LANGUAGE (ENGLISH/FRENCH/SPANISH)
- b. PIP(PIP MODE; PIP SOURCE; PIP POSITION; SIZE)
- c. SLEEP TIMER (OFF/30/60/90/120)
- d. WIDE (WIDE; NORMAL)
- e. INPUT NAMING
- f. RESET ALL SETTING
- g. IMAGE CLEANER

AV MODE

AV-C \ AV-S

A. PICTURE:

- a. PICTURE MODE (CUSTOM; STANDARD; MOVIE; GAME; VIVID; FOOTBALL; GOLF; BASKETBALL; BASEBALL)
- b. BRIGHTNESS (0~100)
- c. CONTRAST (0~100)
- d. COLOR (0~100)
- e. TINT (-32~32)
- f. SHARPNESS (0~100)
- g. ADVANCED VIDEO
 - g-1. NOISE REDUCTION(OFF; LOW; MEDIUM; STRONG)
 - g-2 COLOR ENHANCEMENT(OFF; NORMAL; RICH COLOR; GREN/FLASH; GREEN/BLUE)
 - g-3. ADVANCE ADAPTIVE LUMA (ON/OFF)
 - g-4. COLOR TEMPERATURE(COOL; NORMAL; WARM; CUSTOM)
- h. RESET PICTURE MODE

B. AUDIO:

- a. AUDIO MODE(FLAT; ROCK; POP; CLASSIC; JAZZ)
- b. EQUALIZER(120HZ; 500HZ; 1.5KHZ; 5KHZ; 10KHZ)
- c. BALANCE (-50~50)
- d. SURROUND (ON/OFF)
- e. DIGITAL AUDIO OUT(PCM; OFF; DOBY DIGITAL)
- f. SPEAKERS (ON/OFF)
- g. AUDIO OUT(FIX; VARIABLE)
- h. LIP SYNC(0~5)
- i. RESET AUDIO MODE

C. SETUP:

- h. LANGUAGE (ENGLISH/FRENCH/SPANISH)
- i. PIP(PIP MODE; PIP SOURCE; PIP POSITION; SIZE)
- j. SLEEP TIMER (OFF/30/60/90/120)
- k. WIDE (WIDE; ZOOM; PANORAMIC; NORMAL)
- I. INPUT NAMING
- m. CC (CC ON MUTE; CC ON/OFF)
- n. H/V POSITION(H-POSITION; V-POSITION; H-SIZE; V-SIZE)
- o. PARENTIAL
- p. RESET ALL SETTING
- q. IMAGE CLEANER

D. PARENTAL:

- a. PASSWORD
 - a-1. CHANNEL BLOCK
 - a-2. US TV RATING
 - a-3. US MOVIE RATING
 - a-4. CANADIAN ENGLISH RATING
 - a-5. CANADIAN FRENCH RATING
 - a-6. DTV RATING
 - a-5. BLOCK UNRATED TV
 - a-6. ACCESS CODE EDIT

COMPONENT MODE

A. PICTURE:

- APICTURE MODE (CUSTOM; STANDARD; MOVIE; GAME; VIVID; FOOTBALL;
 GOLF; BASKETBALL; BASEBALL)
- b. CBRIGHTNESS (0~100)
- c. CONTRAST (0~100)
- d. COLOR (0~100)
- e. TINT (-32~32)
- f. SHARPNESS (0~100)
- g. ADVANCED VIDEO
 - g-1. NOISE REDUCTION(OFF; LOW; MEDIUM; STRONG)
 - g-2 COLOR ENHANCEMENT(OFF; NORMAL; RICH COLOR; GREN/FLASH; GREEN/BLUE)
 - g-3. ADVANCE ADAPTIVE LUMA (ON/OFF)
 - g-4. COLOR TEMPERATURE(COOL; NORMAL; WARM; CUSTOM)
- h. RESET PICTURE MODE

B. AUDIO:

- a. AUDIO MODE(FLAT; ROCK; POP; CLASSIC; JAZZ)
- b. EQUALIZER(120HZ; 500HZ; 1.5KHZ; 5KHZ; 10KHZ)
- c. BALANCE (-50~50)
- d. SURROUND (ON/OFF)
- e. DIGITAL AUDIO OUT(PCM; OFF; DOBY DIGITAL)
- f. SPEAKERS (ON/OFF)
- g. AUDIO OUT(FIX; VARIABLE)
- h. LIP SYNC(0~5)
- i. RESET AUDIO MODE

C. SETUP:

- a. LANGUAGE (ENGLISH/FRENCH/SPANISH)
- b. PIP(PIP MODE; PIP SOURCE; PIP POSITION; SIZE)
- c. SLEEP TIMER (OFF/30/60/90/120)
- d. WIDE (WIDE; ZOOM; PANORAMIC; NORMAL)
- e. INPUT NAMING
- f. CC (CC ON MUTE; CC ON/OFF)
- g. H/V POSITION(H-POSITION; V-POSITION; H-SIZE; V-SIZE; AUTO PHASE)
- h. PARENTIAL
- i. RESET ALL SETTING
- i. IMAGE CLEANER

D. PARENTAL:

- a. PASSWORD
 - a-1. CHANNEL BLOCK
 - a-2. US TV RATING
 - a-3. US MOVIE RATING
 - a-4. CANADIAN ENGLISH RATING
 - a-5. CANADIAN FRENCH RATING
 - a-6. DTV RATING
 - a-5. BLOCK UNRATED TV
 - a-6. ACCESS CODE EDIT

HDMI MODE:

A. PICTURE:

- a. PICTURE MODE (CUSTOM; STANDARD; MOVIE; GAME; VIVID; FOOTBALL; GOLF; BASKETBALL; BASEBALL)
- b. BRIGHTNESS (0~100)
- c. CONTRAST (0~100)
- d. COLOR (0~100)
- e. TINT (-32~32)
- f. SHARPNESS (0~100)
- a. ADVANCED VIDEO
 - g-1. NOISE REDUCTION(OFF; LOW; MEDIUM; STRONG)
 - g-2 COLOR ENHANCEMENT(OFF; NORMAL; RICH COLOR; GREN/FLASH; GREEN/BLUE)

g-3. ADVANCE ADAPTIVE LUMA (ON/OFF)

g-4. COLOR TEMPERATURE(COOL; NORMAL; WARM; CUSTOM)

h. RESET PICTURE MODE

B. AUDIO:

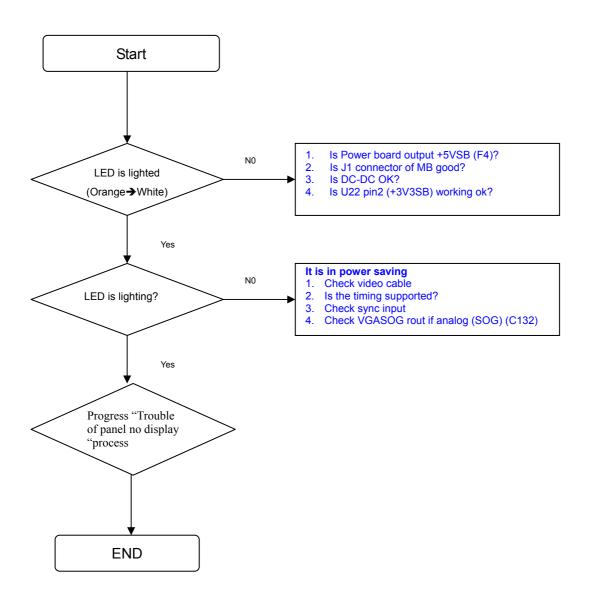
- a. AUDIO MODE(FLAT; ROCK; POP; CLASSIC; JAZZ)
- b. EQUALIZER(120HZ; 500HZ; 1.5KHZ; 5KHZ; 10KHZ)
- c. BALANCE (-50~50)
- d. SURROUND (ON/OFF)
- e. DIGITAL AUDIO OUT(PCM; OFF; DOBY DIGITAL)
- f. SPEAKERS (ON/OFF)
- g. AUDIO OUT(FIX; VARIABLE)
- h. LIP SYNC(0~5)
- i. RESET AUDIO MODE

C. SETUP:

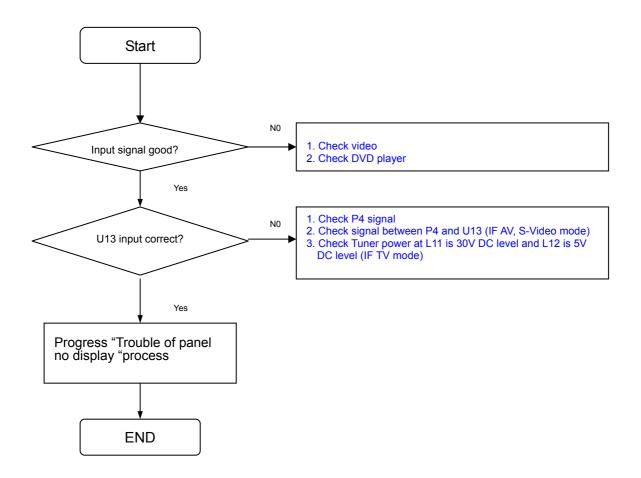
- a. LANGUAGE (ENGLISH/FRENCH/SPANISH)
- b. PIP(PIP MODE; PIP SOURCE; PIP POSITION; SIZE)
- c. SLEEP TIMER (OFF/30/60/90/120)
- d. WIDE (WIDE)
- e. INPUT NAMING
- f. H/V POSITION(H-POSITION; V-POSITION; H-SIZE; V-SIZE)
- g. RESET ALL SETTING
- h. IMAGE CLEANER

Chapter 9 Trouble shooting

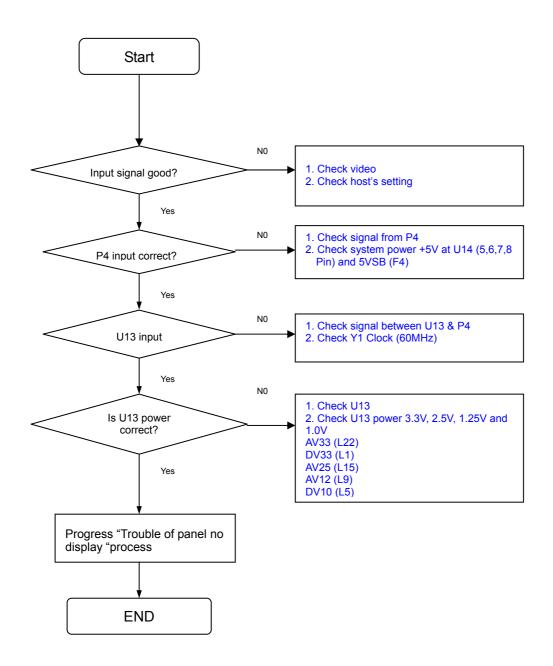
MONITOR DISPLAY NOTHING (PC MODE)



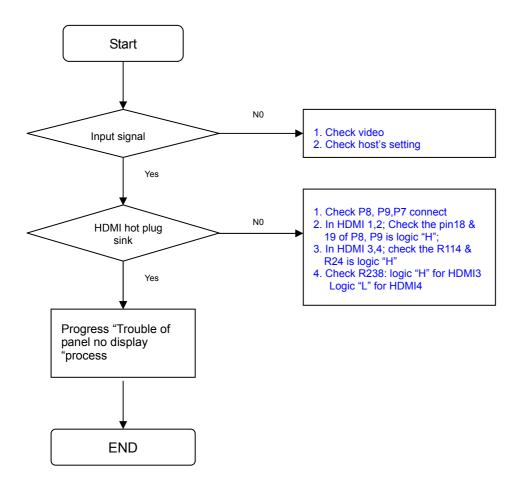
(TV, AV, S-VIDEO) IS NOT DISPLAY CORRECTLY



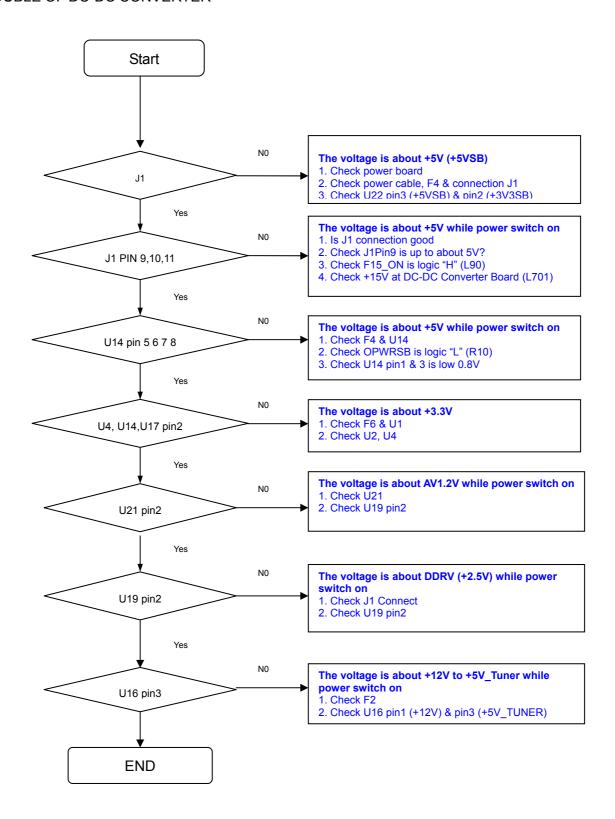
(COMPONENT) IS NOT DISPLAY CORRECTLY



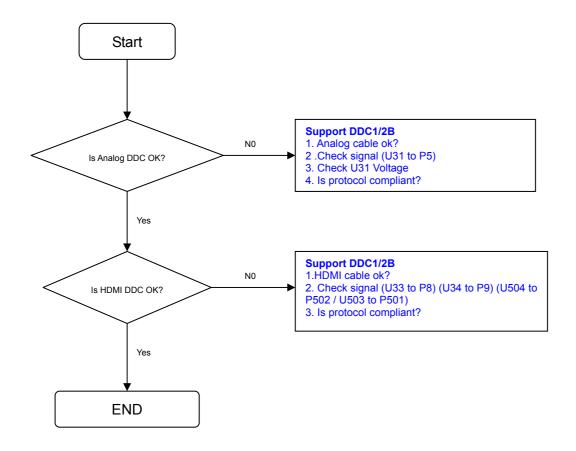
HDMI IS NOT DISPLAY CORRECTLY



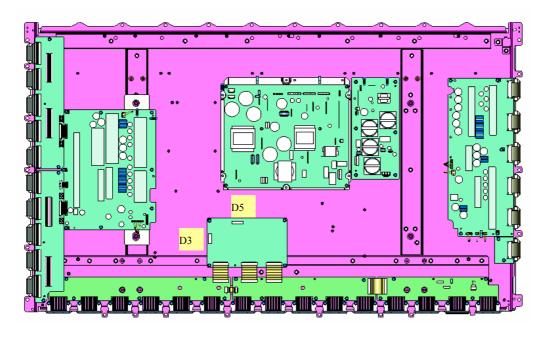
TROUBLE OF DC-DC CONVERTER

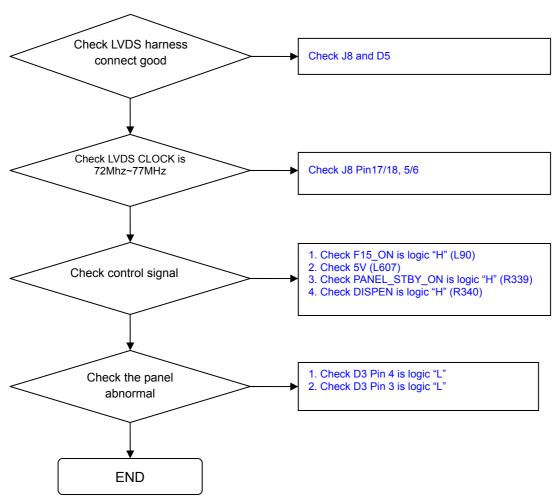


TROUBLE OF EDID READING



TROUBLE OF PANEL NO DISPLAY



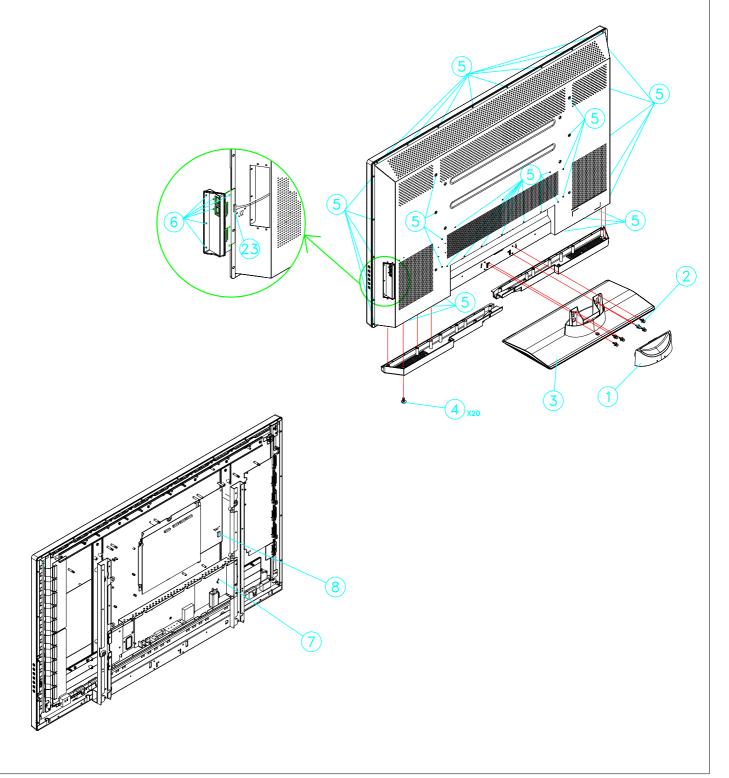


DISASSEMBLY INSTRUCTIONS —————

1.REAR COVER ASS'Y REMOVAL

Note: Spread a mat underneath to avoid damaging the Plasma surface.

- 1) Separate the Neck cover ①.
- 2) Remove four screws 2 from Base Ass'y.
- 3) Separate the Bass Ass'y ③.
- 4) Remove twenty screws 4.
- 5) Remove fouty-four screws 5 and five scrwes 6.
- 6) Remove the connector 3 (J2) of the side jack cable.
- 7) Separate the rear cover.
- 8) Remove the connector ⑦ (CN1) of the ac_in cable.
- 9) Remove one screw ® front pcb support bkt.



2. MAIN BD ASS'Y /POWER DC-DC BD ASS'YREMOVAL

- 1) Remove the connector (4) (J7) of the LVDS cable.
- 2) Remove the connector (9 (J1) of the keypad +IR cable.
- 3) Remove the connector (§ (J3) of the Power cable.
- 4) Remove the connector (8 (J6) of the LVDS cable 1.
- 5) Remove the connector (6) (J4) of the Main cable.
- 7) Remove the six screws 22.
- 8) Remove eight screws @ and two hexagon @ and two screws @ from PCB support .
- 9) Separate the Main BD Ass'y
- 10) Remove the connector (2) (PO1) of the main cable.
- 11) Remove the connector (3 (P02) of the Power cable .
- 12) Remove the four screws 2).
- 13) Separate the POWER DC-DC BD Ass'y.

